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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,503	06/28/2000	John T. Chapman	CISCP145/1945	6276
22434	7590	06/27/2005	EXAMINER	
BEYER WEAVER & THOMAS LLP			HARPER, KEVIN C	
P.O. BOX 70250			ART UNIT	
OAKLAND, CA 94612-0250			PAPER NUMBER	
			2666	

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/606,503

Applicant(s)

CHAPMAN ET AL.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15, 31-44, 58-63, 70 and 72-83 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15, 31-41, 44, 58-63, 70 and 72-83 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 42 and 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/00.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Applicant's election without traverse in the reply filed on January 18, 2005 is acknowledged. Applicant did not elect a species as required by the previous office action. However, that requirement is hereby withdrawn.

***Specification***

2. The disclosure is objected to because of the following informalities: On page 11, "Figure 5" should be --Figure 7--. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 8, 10-12, 15, 31, 37, 39-41, 44, 72-73 and 79-80 rejected under 35 U.S.C. 102(e) as being anticipated by Jaszewski et al. (US 5,933,420).

3. Regarding claims 1, 8, 31, 37, 72-73 and 79-80, Jaszewski discloses a method in a system (fig. 1, item 110) for facilitating communications between a network node (fig. 1, item 101 and a head end of a wireless access network (item 2), where the access network includes several nodes which communicate with the head end via an upstream channel and a downstream channel (col. 3, lines 32-33 and 40-41). The method comprises receiving at an interface of a first node a first

communication from the head end via the first downstream channel (col. 3, lines 40-41), where the communication includes a dynamic channel change request to perform a downstream channel change operation (col. 8, lines 14-16), the first node responding to the channel change request by implementing the channel change operation (col. 8, lines 16-18), receiving at the interface a second communication from the head end via the second downstream channel, and the first node communicating with the head end using data received on the second downstream channel (col. 8, lines 16-18; col. 1, lines 12-13). Further regarding claims 72-73 and 79-80, the method comprises determining that the first node is able to receive communications from the head end via the second downstream channel (fig. 2, step 220 and 260; fig. 3, item 372; note: direct conflict is eliminated; fig. 1, item 103; note: interference in channel 3 for item 103). Further regarding claim 79-80, the system (fig. 1, item 110) inherently comprises a processor and memory (col. 3, lines 27-29).

4. Regarding claims 10-11 and 39-40, the downstream channel change request is also an upstream channel change request (note: the upstream and downstream channels are switched at the same time because they are in the same frequency range -- col. 2, lines 8-12; col. 8, lines 14-20).

5. Regarding claims 12 and 41, switching the upstream and downstream channels results in switching between a first domain and a second domain of the access network (fig. 3, items 370 and 372; note: a frequency range (domain) is changed within the access network).

6. Regarding claims 15 and 44, the channels are not in synchronization (col. 9, lines 55-58; note: disruption when changing channels).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-7, 9, 31-36, 38, 58-63, 70, 72, 74, 79 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US 5,784,597).

7. Regarding claims 1-3, 6, 31-33, 58-60, 70 and 79, Chiu discloses a method for facilitating communications in a system between a network node (fig. 1, item 105) and a head end (item 103) of an access network (fig. 1), where the access network includes several nodes (105) to communicate with the head end via at least one upstream channel (col. 5, lines 62-63; fig. 5) and first and second downstream channels (col. 5, lines 56-60; col. 13, lines 11-16; col. 26, lines 1-10). The method comprises an interface of a node receiving from the head end via a first downstream channel a request to perform a dynamic channel change operation (col. 13, lines 11-14), and the node responding to the dynamic channel change request by implementing the downstream channel change operation (col. 26, lines 6-10). Further regarding claims 58-59, 62 and 79, the method is implemented by a computer program product on a computer usable medium (col. 31, lines 41-42; fig. 3, item 302).

8. However, Chiu does not explicitly disclose receiving a second communication with the head end via the second downstream channel and communicating with the head end using data received on the second downstream channel. Although, Chiu discloses communicating information on an upstream channel based on received communications on a downstream channel (col. 10, lines 14-16; col. 10, lines 2-6 and 9-11). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to receive a second communication on a second downstream channel and communicate with the head end using data received on the second downstream channel in the invention of Chiu in order to continue normal system operation after switching to the second downstream channel (note: normal system operation includes periodically changing upstream channels -- col. 12, lines 52-64).

9. Regarding claims 4, 34 and 61, the node determines whether the second downstream channel is being used for receiving communications from the head end (col. 26, lines 6-10).

10. Regarding claim 72 and 79, these limitations have been addressed in the rejection of claims 1 and 4 above. Further regarding claim 79, the system (head end) includes a processor (fig. 2, item 209) and a memory (fig. 2, item 211).

11. Regarding claims 5, 35, 62, the node transmits a channel change response in response to receiving the request (col. 15, lines 55-56).

12. Regarding claims 7, 36 and 63, the network node determines when a channel is being used by the head end and switches to another channel in response to the determination that data transmitted at the head end cannot be successfully received. However, Chiu does not specifically disclose that the channel change is from the second channel back to the first channel. Although, Chiu discloses several frequencies for use in the system (col. 7, lines 15-18) and selecting a different downstream channel (col. 13, lines 11-13). Therefore, it would have been obvious to one

Art Unit: 2666

skilled in the art at the time the invention was made to switch from the second downstream channel to the first downstream channel in the invention of Chiu in order to flexibly or dynamically use system resources as needed (col. 26, lines 1-2).

13. Regarding claims 9, 38, 74 and 81, the network is a cable network (col. 5, lines 22-26) having cable modems (col. 5, line 48) and a head end (item 103) having a CMTS (item 101; col. 7, lines 6-13).

Claims 75-78 and 82-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US 5,784,597) as applied to claim 1, 72 or 79 above, in further view of Enns et al. (US 2005/0018697).

14. Regarding claims 75-78 and 82-83, Chiu discloses changing a downstream channel. However, Chiu does not disclose performing load balancing to change the downstream channel. Enns discloses changing a downstream channel in order to achieve load balancing (para. 77, lines 1-17) in a cable system (figs. 1 and 4A; col. 30, lines 6-9). The bandwidth of the downstream channels is monitored (para. 77, lines 4-9). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to perform load balancing in the invention of Chiu in order avoid congestion by properly allocating system resources (Enns, para. 76, lines 2-8).

***Allowable Subject Matter***

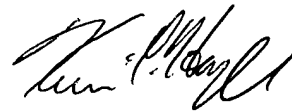
15. Claims 13-14 and 42-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 571-272-3174. The centralized fax number for the Patent Office is 703-872-9306. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

June 23, 2005